

CLAIMS:

1. A low-pressure mercury vapor discharge lamp comprising:
 - a light-transmitting discharge vessel (10) enclosing, in a gastight manner, a discharge space (13) provided with a filling of mercury and a rare gas,
 - the discharge vessel (10) comprising discharge means for maintaining a discharge in the discharge space (13),
 - the discharge vessel (10) being provided with a container (3) comprising an amalgam (2),
 - the container (3) being provided with releasing means (4) for the controlled release of mercury vapor from the amalgam (2),
 - 10 the releasing means (4) being open during lamp operation,
 - the releasing means (4) being substantially closed when, during lamp operation, the temperature of the amalgam (2) becomes higher than a pre-determined temperature.
- 15 2. A low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the pre-determined temperature corresponds to a temperature of a range of temperatures at which the mercury-vapor pressure above the amalgam (2) is relatively stable.
- 20 3. A low-pressure mercury vapor discharge lamp as claimed in claim 2, characterized in that the pre-determined temperature corresponds to 75-110% of the lowest temperature of the range of temperatures at which the mercury-vapor pressure above the amalgam (2) is relatively stable.
- 25 4. A low-pressure mercury vapor discharge lamp as claimed in claim 1, 2, or 3, characterized in that the releasing means (4) comprises a resilient means (6) made of a shape-memory alloy, the transformation temperature of the shape-memory alloy being chosen to correspond substantially to the pre-determined temperature, the resilient means (6) being

substantially closed when the shape-memory alloy reaches the transformation temperature of the shape-memory alloy.

5. A low-pressure mercury vapor discharge lamp as claimed in claim 1, 2 or 3,
characterized in that the product of the mercury pressure p_{Hg} and the internal diameter D_{in} of
the discharge vessel (10) is in the range $0.13 \leq p_{Hg} \times D_{in} \leq 8 \text{ Pa.cm.}$

6. A low-pressure mercury vapor discharge lamp as claimed in claim 5,
characterized in that the product of the mercury pressure p_{Hg} and the internal diameter D_{in} of
10 the discharge vessel (10) is in the range $0.13 \leq p_{Hg} \times D_{in} \leq 4 \text{ Pa.cm.}$

7. A low-pressure mercury vapor discharge lamp as claimed in claim 1, 2, or 3,
characterized in that the discharge vessel (10) contains less than 0.1 mg mercury.

15 8. A low-pressure mercury vapor discharge lamp as claimed in claim 1,
characterized in that the releasing means (4) is open during lamp-off periods.

9. A compact fluorescent lamp comprising a low-pressure mercury-vapor
discharge lamp as claimed in claim 1, 2, or 3, the compact fluorescent lamp comprising:
20 at least two dual-shaped lamp parts (35; 36; 37), each comprising a first tube (41;
45; 49) and a second tube (43; 47; 51),
the first tube (41; 45; 49) and the second tube (43; 47; 51) at a first end portion
(41a, 43a; 45a, 47a; 49a, 51a) of each tube (41, 43; 45, 47; 49, 51) being interconnected via a
tube interconnection means (42; 46; 50),
25 a discharge path being formed through the tubes (41, 43; 45, 47; 49, 51) between
a first (20a) and a second electrode (20b), each electrode (20a, 20b) being provided at a second
end portion (41b; 51b) of one of the tubes (41; 51), the second end portions (41b; 51b) facing
away from the first end portions (41a; 51a), the electrodes (20a; 20b) being provided at extreme
ends of the fluorescent lamp,

30 further second end portions (43b; 45b; 47b; 49b) of the tubes (43; 45; 47; 49)
being provided with a sealed end,

bridge parts (44; 48) for mutually connecting tubes (43, 45; 47, 49) of adjacent
dual-shaped lamp parts (35, 36; 36, 37) being provided in the proximity of the second end
portions (43b, 45b; 47b, 49b) of the tubes (43, 45; 47, 49),

at least one of the further second end portions (45b) being provided with the container (3) comprising the amalgam (2).

10. A compact fluorescent lamp as claimed in claim 9, characterized in that a heating means (25) is provided at the further second end portion (45b).
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11. A compact fluorescent lamp as claimed in claim 9, characterized in that the tube interconnection means (42; 46; 50) is either a bridge portion or a bent portion.
- 10 12. A compact fluorescent lamp as claimed in claim 9, characterized in that a lamp housing (70) is attached to the discharge vessel (10) of the low-pressure mercury-vapor discharge lamp, which lamp housing is provided with a lamp cap (71).